

Northeastern Wisconsin Forest Health Update

Wisconsin DNR – Division of Forestry

August 24, 2016

Topics covered this month:

Insects:

Aspen blotch miner
Barklice
Beech blight aphids
Beech bark disease update
Beech scale egg collection for resistant beech
EAB new finds in WI
EAB other news
Felt mites on maple
Gypsy moth spray program training
Gypsy moth inspections
Insect and disease workshops
Lecanium scale
White pine weevil

Other:

Giant hogweed
Jumping worms
Leaf scorch

Diseases:

Botryosphaeria canker on oak
Oak wilt in Town of Arbor Vitae
Venturia shoot blight

Of Historical Interest

25 years ago - 1991 –
 Birch leafminer
 Saddled prominent
50 years ago - 1966 –
 Pine spittlebug
 Redheaded pine sawfly

Insects

Aspen blotch miner – aspen blotch miner symptoms are showing up on aspen of all ages. Symptoms include thin crowns, off-color leaves, “blisters” on the underside of the leaf, and eventually curling and browning of the leaves. This year, similar to past years, I’ve seen it in Oconto, Marinette, Florence, Forest, Oneida, and Vilas Counties. The defoliation can be severe but aspen generally handles the defoliation well, and I’ve seen some aspen sending out new



Aspen blotch miner damage.

leaves that are not affected. So although it can look bad the effects on the overall health of the trees seem to be negligible.

Barklice – Last year was a big year for barklice with populations being reported all around the state. This year the populations must be down as I've only received one report, from Waupaca County. Let me know if you're seeing these congregations on trees. And remember, barklice don't bite, they don't spread disease, they're not a true lice, and they don't do damage to the tree, so there's no reason to kill them or fear them. For children (and adults who are still kids at heart), when you find a congregation of them, move your hand towards one side of the congregation and watch the whole group of them move as one away from your hand. It's like herding bugs!



A congregation of barklice.
Photo by Mike Schuessler.

Beech blight aphids – I saw these aphids in Door County recently. They can cover branches on beech trees and do a dramatic “dance” by waving their fuzzy hind ends rapidly back and forth. Sometimes called the Boogie Woogie Aphid, the aphid's dance can be quite eye-catching, though they are really trying to scare away predators. This insect is not associated with beech bark disease and apparently does relatively little damage to the tree, even though its name makes it sound like quite a nasty little aphid. If you've never seen the aphids dance there are numerous short videos posted online that you can search for.



Beech blight aphids on American beech.

Beech bark disease update – the first sign of beech bark disease arriving in an area is when the beech scale population starts to explode, and trees start to become covered in the white fluff that the scale insects produce. Typically it will start with just one tree having high scale populations. I found this situation in Potawatomi State Park this year, finding just a few trees with obvious scale populations. There is no decline or mortality yet within Potawatomi State Park. In other areas of Door County where we have previously identified beech bark disease, we continue to see buildup of scale populations, and decline and mortality of the beech trees.

Beech scale collection for resistant beech – we recently collected scale eggs from heavily infested beech trees at Whitefish Dunes State Park. These eggs will be used to “challenge” some beech trees that we suspect are resistant to beech bark disease. These possibly resistant trees were identified in the area of Door County where beech bark disease has been present the longest. In that area beech



Bill McNee collects beech scale eggs from trees at Whitefish Dunes State Park.

trees are dying, or are long dead, but we did find a couple trees that were still alive, healthy, and had almost no scale present on their bark, while their neighbors were heavily infested with scale or were already dead. Cuttings from these potentially resistant trees were collected and are being grown at the Oconto River Seed Orchard. Genetic resistance to beech bark disease is found in 1-5% of the beech tree population. We hope that by identifying local resistant trees that we can promote this resistance and keep beech into the future.

EAB new finds in WI - In the past month emerald ash borer has been identified in the following areas around the state:

New County Quarantines:

- none

New finds in Counties already Quarantined:

- Brown County – City of DePere
- Crawford County – Town of Wauzeka
- Dodge County – City of Mayville
- Richland County – Town of Akan
- Sheboygan County – City of Plymouth, City of Sheboygan Falls, Town of Glenbeulah
- Washington County – Village of Kewaskum
- Winnebago County – City of Oshkosh

EAB other news – Wisconsin’s EAB map is now interactive! Go to [Wisconsin’s EAB page](#), click the “Where has EAB been found” button on the left, then page down to the map at the bottom. You can enter an address to see if it is in the quarantine area. This is useful for those folks who think they have EAB but don’t know if it’s already been reported in their area. They can type in their address and a box will pop up telling them if it has been found in the area and there is no need to report it, or if EAB has not been found there and they should report it.

Felt mites on maple – Eriophyid mites or velvet mites are caused by felt mites (Eriophyid mites). The feeding by the mites causes the leaf to grow a fuzzy material over and around the mite that resembles felt. The mites then live comfortably within the “felt”, which is really just an abundance of leaf hairs that protects the mites while they continue feeding on the leaves. An interesting tidbit ... Eriophyid mites only have 2 pairs of legs. Damage is generally cosmetic.



Red felt mites on maple.

Gypsy moth spray program training – There will be one training session held this year for counties interested in the aerial spray cost share program for gypsy moth. The training session is Thursday, September 15 in Fitchburg. Contact [Mark Guthmiller](#) for more information about the training session. Who should attend this session? Anyone who may be involved in the suppression program, particularly: county suppression coordinators, municipal foresters, town clerks or other municipal representatives, DNR property managers, and consulting arborists or foresters who may be hired by county or local officials. If your county or community is

considering participating in the program but has not yet decided, this training session may answer many of your questions.

Gypsy moth inspections – are you moving to an area of the US that is not quarantined for gypsy moth? Be sure you know the rules. USDA APHIS has updated PPQ Form 377: Gypsy Moth Checklist and Record of Your Self-Inspection. People who live in the [gypsy moth quarantine area](#) - generally the northeast quadrant of the contiguous United States - must use PPQ Form 377 to inspect their outdoor household goods for gypsy moth before they move to a non-infested area. The Federal gypsy moth regulations (Title 7 Code of Federal Regulations 301.45-4) require this action to prevent the human-assisted movement of gypsy moth. A copy of the form must accompany the household goods during the move. This checklist may be completed by the person moving or by a qualified certified applicator. Once completed and signed, the checklist is an official certificate that will satisfy Federal requirements for interstate moves. The updated checklist can be downloaded from the APHIS Web site. It is the second page of the factsheet “[It's the Law: Before Moving, Check for the Gypsy Moth.](#)”



L to R. Gypsy moth female laying an egg mass. Empty pupal case. Leftover caterpillar skin.

Insect and Disease workshops – UW Extension and DNR Urban Forestry are co-hosting the 2016 Urban Forestry Workshops. The title this year is Pest Management with Pollinators in Mind ... but don't let the title scare you, it isn't just about pollinators. There will be plenty of good ol' insect and disease identification, as well as discussions on control. Check out the brochures for [Green Bay \(Sept 21\)](#) and [Oshkosh \(Sept 22\)](#). There are other locations around the state as well if you're interested. You can contact [Tracy Salisbury](#) for more information.

Lecanium scale – some branch mortality is beginning to show up due to the high populations of Lecanium scale the past couple years. Ash and basswood in some areas of Door and Kewaunee Counties seem to be impacted the most. In some areas the branch mortality is limited to the lower ½ of the crown, but in other areas the entire crown appears thin. I suspect there are other areas showing dieback from the high Lecanium scale populations so let me know if you're seeing this.

In areas of heavy lecanium scale I'm also noticing that lower branches appear black due to the sooty mold that grows on the honeydew produced by the scale insects. The pale lichens on those lower branches will then stand out starkly, and this is something that can be spotted as you're driving at highway speeds.



Branches on this ash tree are black from the sooty mold growing on the honeydew produced by lecanium scales.

White pine weevil – the damage from white pine weevil shows up clearly at this time of year, although the actual damage occurred much earlier in the year. Shepherds crook tops on white pine, jack pine, or spruce indicate white pine weevil damage. White pine weevil prefers stout leaders, so spruce and open-grown jack pine can be favorite hosts. Adult weevils are out in the spring laying eggs on the terminal leaders, just below the expanding buds. The eggs hatch and the larvae bore under the bark of the terminal and feed just under the bark, moving downwards as they feed. Meanwhile, the buds continue to expand but quickly run out of water and food and begin to wilt and curl, forming the shepherds crook. White pine, jack pine, and spruce are all fairly adept at recruiting a side branch to take over apical dominance when the terminal leader is killed by white pine weevil, although this process will create a crook in the stem at that point. For more information and pictures of the adult and the larvae go to

http://www.na.fs.fed.us/spfo/pubs/fidls/wp_weevil/weevil.htm



Jack pine terminal leader killed by white pine weevil.

Willow flea weevil – for the 3rd year in a row, damage from willow flea weevil is showing up in Brown, Shawano, and Oconto Counties. Willows are turning brown due to the leafmining and feeding damage of larvae and adults. The trees appear brown and “dried up” from a distance, although they’re not dead. Adults weevils tend to “rain down” out of the tree onto your head when you disturb a branch. Defoliation starts with the immature stage of the weevil, a tiny grub that feeds inside the leaves, mining out leaf material and leaving dead brown blotches. The mature larvae pupate and adults will emerge to feed on the leaves, leaving tiny round feeding marks. The adults will overwinter and emerge in the spring to feed on the opening buds and new leaves.

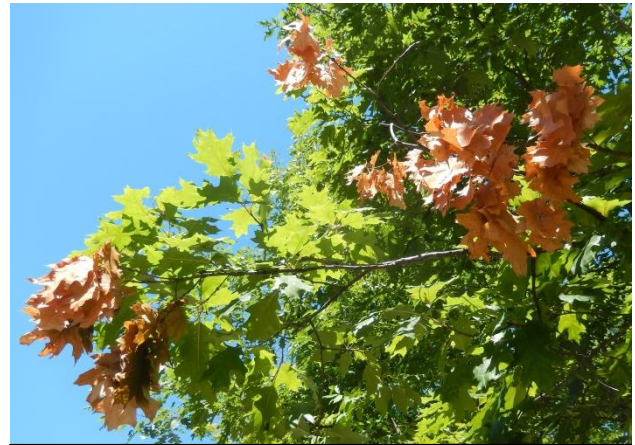


Willow flea weevil damage from larvae which are leafminers.

Diseases

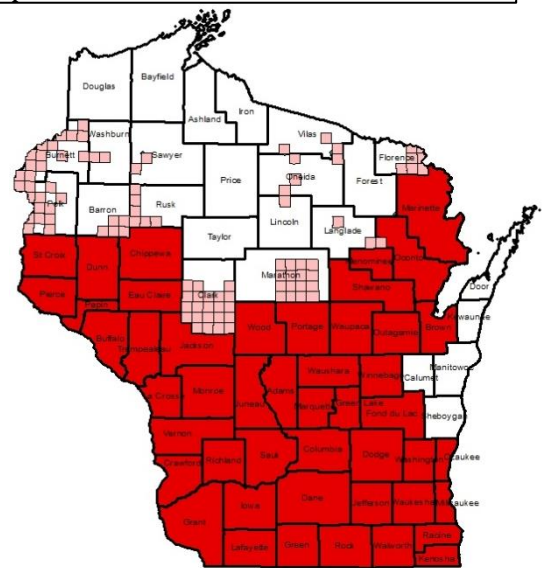
Botryosphaeria canker on oak – sudden branch tip mortality on oaks in Vilas and Oneida Counties is due to Botryosphaeria canker (*Botryosphaeria quercuum*). Botryosphaeria is a fungal disease that usually just kills the outer 4-8 inches of the tips of twigs but some trees may

have more severe damage. Typically, black fruiting bodies will erupt through the bark of killed twigs, or sunken cankers may be present. This disease can also attack oak seedlings, killing the entire top of the tree. Several years of infection can cause young trees to look stunted and tufted as the terminal buds and branches are killed by the disease. This disease is often cyclical and will cause problems for a year or two and then disappear for a while. Dead twigs can be pruned off if desired although usually little or no control is required or practical.

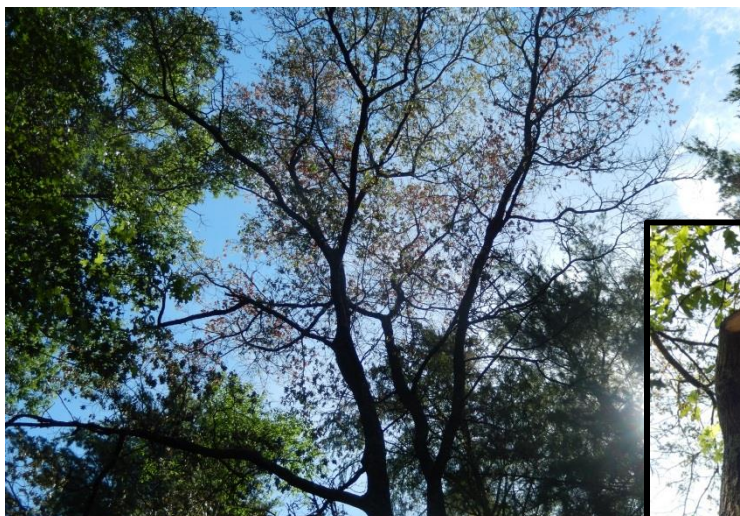


Branch tip dieback on oak due to botryosphaeria.

Oak wilt in Town of Arbor Vitae – oak wilt was recently identified in the Town of Arbor Vitae (Vilas County). This tree, and several other oaks in the area, had been pruned this spring during the high risk time period for overland spread of oak wilt. In addition to the pruning occurring during the high risk period (April 15 – July 15), the trees were climbed using spikes, which also creates injuries on the tree that can attract the beetles that spread oak wilt. When this tree suddenly started dropping leaves the landowner called to report it. Oak wilt is not very common in many areas of northern Wisconsin, but it's important to be aware of where it is located so that you can prune and harvest oaks in a way that will minimize overland spread of the disease by the beetles. The map at right has been updated with the latest info on oak wilt locations.



Pink squares indicate oak wilt has been found in that township. Red counties have a general distribution of oak wilt throughout the county.



Oak tree in the Town of Arbor Vitae rapidly wilting in July (above), and the pruning wounds from this spring (right).



Venturia shoot blight – Venturia shoot blight was noted in Oneida County. This is a fungal disease that affects young aspen, causing the terminal leaves and shoots to droop, turn black, and die. This is a disease that occurs in the spring, but the black shepherds crook at the top of the sapling can remain throughout the growing season. No control is recommended in forest stands, although repeated infection can cause some reduced height growth or cause the young stems to be a bit zig-zag as other branches take over apical dominance. Very young regeneration that is killed back to the ground will have to resprout from the roots of the parent tree. Cool wet weather in the spring promotes the disease so in some years, like this year, it can be more pronounced. As the trees grow older they become less susceptible to the fungus.



Other/Misc.

Giant Hogweed –A population of giant hogweed (*Heracleum mantegazzianum*), a species classified as prohibited in NR 40, was recently reported in Sheboygan County. This is a nasty plant that can cause severe burns if you get the sap on you, similar to wild parsnip burns. Control efforts were initiated in conjunction with local partners. A press release about the control effort issued by the Southeastern Wisconsin Invasive Species Consortium (SEWISC) generated media coverage statewide. This prompted many reports of possible hogweed locations from all over the state. So far all reports have turned out to be of other species, ranging from cow parsnip to Queen Ann's Lace and giant ragweed. This year in many areas of the state our native cow parsnip is growing vigorously and is 6+ feet tall with leaves and flowerheads the size of large dinner plates. For comparison, giant hogweed can be much larger, with leaves and flowerheads the size of an umbrella. For more info on giant hogweed found in Sheboygan County, check out the [SEWISC](http://sewisc.org/) website.



Giant hogweed is very large. Photo from <http://bcinvasivesmonth.com/invasives/detail/112>

For comparison, giant hogweed can be much larger, with leaves and flowerheads the size of an umbrella. For more info on giant hogweed found in Sheboygan County, check out the [SEWISC](http://sewisc.org/) website.

If you think you've found giant hogweed please send photos of the entire plant, leaf, flower cluster, and close-up of the stem at the node with a leaf to invasive.species@wi.gov.

Jumping worms – I recently got to visit the UW Arboretum in Madison to see jumping worms. This was the first location in Wisconsin to identify jumping worms, which are listed as a restricted species in NR 40. They feed very aggressively in the upper layers of the soil, and can dramatically change the soil properties. The photo at right shows how the soil will become clumped into crumbles, sort of like granola



Soil infested with jumping worms will consist of loose "crumbles" that don't hold water well.

clusters, which do not hold water well, and don't offer roots a good place to grow. For more info on jumping worms check out the 2015 article in [Wisconsin Natural Resources Magazine](#).

Leaf Scorch - Leaf scorch is not a leaf disease but a result of the environment that the tree is living in. Scorch can be caused by reflection of the sun off a nearby surface (a building, car, or cement) or a tree can be predisposed to scorch if it is lacking a needed nutrient. In either case the leaf starts to brown out at the leaf edges or between the veins of the leaf. Reports this year have all been on oak, and this seems to be a problem in all the counties I'm covering. People often mistake this for oak wilt, but these leaves don't drop rapidly like oak wilt leaves will. Since this is not a leaf disease there are no treatments once you notice the damage.



Leaf scorch.

Of Historical Interest

25 years ago, in 1991 –

- **Birch Leafminer** - *Fenusa pusilla* (Lepeletier) Symptoms were widespread, but the incidence of this insect appeared to decrease from 1990 levels. Typical spring browning of birch crowns occurred on open grown trees in Washburn, Douglas, Bayfield, Sawyer, Langlade, Oneida and Vilas counties.
- **Saddled Prominent** - *Heterocampa guttivitta* (Walker) Heavy, late-season defoliation of sugar maple occurred in and around Peninsula State Park in Door County.

50 years ago, in 1966 -

- **Pine Spittlebug** - *Aphrophora parallela* (Say) Spittle masses were more numerous throughout the Northwest Area in 1966. The upper half of the trunks of many trees were covered with spittle in the township of Sterling in Polk County (T36N, R19W and T36N, R20W). This was the third year of heavy infestation for some stands in the Town of Sterling, but no mortality attributable to spittlebug has been noted. High populations were generally observed on jack and Scotch pine in Northeast Area counties where heaviest infestations were noted in Langlade, Marinette, Oconto and Vilas Counties. Spittle masses were infrequently observed in the East and West Central Areas on Scotch or jack pine, and spittle masses appeared to be adversely affected by hot, dry weather.

Phenological Notes:

June 1 -Spittlebugs were in the first nymphal stage in the Northeast Area.

June 4 - Most spittlebugs in the 4th nymphal stage in the Northeast Area.

June 2 - adults first observed in Polk County.

July 13 - Adults observed in Langlade County.

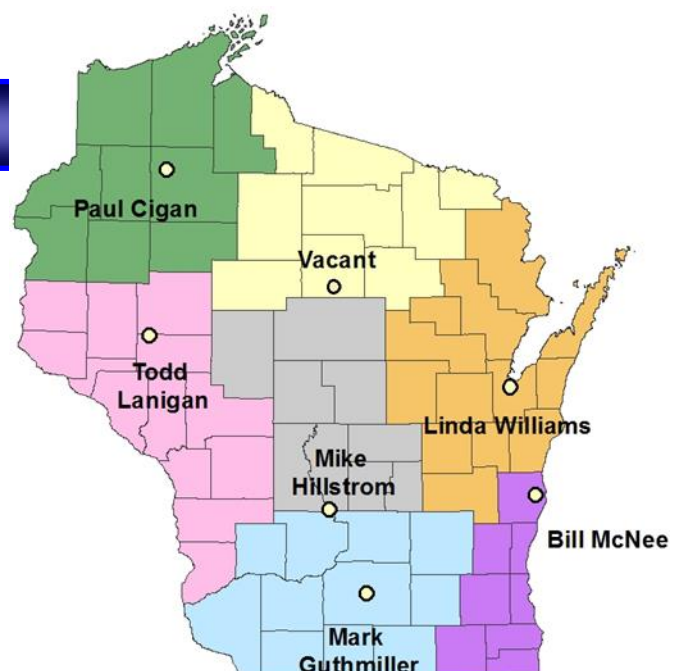
- **Red-Headed Pine Sawfly** - *Neodiprion lecontei* (Fitch) A few scattered infestations were reported, mostly from the Northwest and Northeast Areas. Colonies were observed on roadside jack pine in Burnett and Washburn Counties. Most larvae had cocooned in Washburn County by August 22. Although only scattered colonies were noted on red pine in Langlade, Oneida and other northeast counties, heavier infestations were found in in red pine plantings in Oconto County (Section 3, T30N, R17E) and Vilas County (Section 7, T43N, R8E). Trees were from 3' to 5' tall in the Oconto County plantation, and 90 percent of them had 3 to 5 colonies per tree. Trees in the Vilas County plantation were from 6' to 10' tall, and 60 percent of them were similarly infested. A few defoliated pine branches were the only evidence of activity of this insect in the West Central Area, and three colonies were found in Waushara County (East Central Area) where larvae were mature on July 19.

Contact Us

Forest Health Staff - contact info for each Forest Health Specialist can be found our webpage at <http://dnr.wi.gov/topic/ForestHealth/staff.html>

Vacancy area coverage:

Oneida, Vilas, Forest, Florence Co's – Linda Williams



Lincoln, Langlade Co's – Mike Hillstrom
Price, Taylor Co's – Todd Lanigan
Iron County – Paul Cigan

Report EAB:

by phone 1-800-462-2803
by email DATCPEmeraldAshBorer@wisconsin.gov
visit the website <http://emeraldashborer.wi.gov/>

Report Gypsy Moth:

by phone at 1-800-642-6684
by email dnrfrgypsymoth@wisconsin.gov
visit the website <http://www.gypsymoth.wi.gov/>

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Note: This pest update covers forest health issues occurring in Northeastern Wisconsin. This informal newsletter is created to provide up-to-date information to foresters, landowners, and others on forest health issues. If you have insect or disease issues to report in areas other than northeastern Wisconsin please report them to your local extension agent, state entomologist or pathologist, or area forest pest specialist.

Pesticide use: Pesticide recommendations contained in this newsletter are provided only as a guide. You, the applicator, are responsible for using pesticides according to the manufacturer's current label directions. Read and follow label directions and be aware of any state or local laws regarding pesticide use.